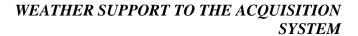
BY ORDER OF THE COMMANDER AIR FORCE MATERIEL COMMAND AFMC INSTRUCTION 15-102 30 OCTOBER 1998

Weather





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OPR: HQ AFMC/DOW (Lt Col Cliffswallow) Certified by: HQ AFMC/DOW (Lt Col Clark)

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This instruction implements AFPD 15-1, *Atmospheric and Space Environmental Support*, by giving guidance in identifying and providing weather support to the Air Force acquisition process and supporting research, development, test, and evaluation (RDT&E). It establishes procedures for managing AFMC weather support to Air Force acquisition programs and technology-based efforts. It identifies the responsibilities to determine, document, and coordinate weather support requirements of Air Force acquisition programs from concept through system retirement, including deployment and some aspects of employment. This instruction specifies the development of documents detailing weather support concepts and methodology.

1. General. AFMC advance-degree research, acquisition, and test meteorologists are assigned to organizations within the AF Research Lab (AFRL), and AFMC Product Centers and Test Centers. These personnel, collectively known as "staff meteorologists" or "staffmets", perform or support basic research and support the development, acquisition, and testing of AF weapon systems and capabilities by identifying, documenting, and helping resolve environmental sensitivity issues and weather support requirements.

2. Responsibilities

2.1. HQ AFMC/DOW will:

- 2.1.1. Provide functional oversight and policy guidance to staffmets; perform unit assistance visits; assist with resolving manpower shortfalls; develop and/or recommend training materials and courses for staffmets; and manage a crossfeed program to exchange technical, acquisition, and other appropriate information among AFMC and other interested offices.
- 2.1.2. Review requirements documents (e.g., Mission Needs Statements (MNS), Operational Requirements Documents (ORDs), Capstone Requirements Documents (CRDs)) for operational thresholds related to the environment and for weather support requirements; solicit staffmet review and comments as appropriate.

2.1.3. Semiannually (April and October), review Program/Project Briefs (see Attachment 2) and distribute them to HQ AFRL, the Weather Technical Planning Integrated Product Team (TPIPT), HQ USAF/XOW, HQ AFWA/XP, MAJCOM weather divisions, AFMC staff meteorologists, AF Operational Test and Evaluation Center (AFOTEC) Staff Weather Officers (SWOs), and other offices as appropriate.

- 2.1.4. Assist staff meteorologists in transferring support responsibility to AFOTEC during the transition from developmental test and evaluation (DT&E) to Operational Test and Evaluation (OT&E), or in providing/arranging for support if DT&E and OT&E are combined.
- 2.1.5. Facilitate, as needed, interactions between staffmets and MAJCOM SWOs on issues concerning weather support requirements, modeling and simulation requirements, and acquisition processes.

2.2. HQ AFRL Chief Meteorologist will:

- 2.2.1. Be the senior staff advisor to the AFRL/CC on terrestrial and space weather issues, requirements, and investment strategies in support of research and technology development activities throughout AFRL.
- 2.2.2. Provide guidance and assistance to AFRL staffmets; manage integration and crossflow of project and technical information across directorates; act as liaison to other DOD and Federal research facilities for technical exchange in environment research; interface with HQ AFMC/DOW, HQ AFWA, HQ USAF/XOW, and the Weather TPIPT on weather support issues and deficiency solution planning.
- 2.2.3. Advise HQ AFMC/DOW on lab-specific recommendations concerning overall staffmet policy or requirements.

2.3. Staff meteorologists will:

- 2.3.1. Visit supported organizations to determine requirements for meteorological assistance; assist their customers in analyzing environmental sensitivities of their systems, need for weather data (e.g., for C4I systems, models and simulations), need for other types of weather support (e.g., data collection campaigns, weather effects tools); provide or arrange for support, request assistance from other agencies as needed; identify potential technology for use in Air Force Weather (AFW).
- 2.3.2. Work with program/project offices to identify standards containing appropriate environmental design criteria and to include them in acquisition documentation; document the impact of the system's weather sensitivities on the environmental design criteria for the supported office; identify potential weather support shortfalls to the program/project office, lead command weather division, HQ AFWA, and HQ AFMC/DOW.
- 2.3.3. Provide or arrange for environmental support to their programs during DT&E; coordinate the environmental test criteria and environmental support to their programs in test plans, as initiated and updated by the program/project office; consult with the OT&E support agency on any OT&E weather support requirements.
- 2.3.4. Submit semi-annual Program/Project Briefs to HQ AFMC/DOW on 1 April and 1 October, on all significant programs requiring weather support at their location, in accordance with Attachment 2. Coordinate the draft Program/Project Brief with the program/project office. If no change

has occurred since the last submission, report "no change". Off-cycle updates should be submitted at any time a significant change has occurred.

- 2.3.5. Prepare and submit, or make available electronically, monthly activity reports (Attachment 3) to HQ AFMC/DOW, to include recent support to all projects and other activities involving unit personnel.
- 2.3.6. Prepare and submit to HQ AFMC/DOW, or make available electronically, reports of "value-added" of their services (Attachment 4). Reports will be an annual summary, due 15 Jan for the previous calendar year, and an interim report when a project or tasking is completed. Project completion reports and other value-added information may be included in monthly activity reports.
- 2.3.7. Advise Lead Command SWOs on technical matters concerning new system acquisition programs. Provide consultation services related to MAJCOM development of the weather support concept of operations (CONOPS) for new systems, and on operating, environmental support, and modeling and simulation requirements for inclusion in system requirements documents.
- 2.3.8. Review and coordinate, as appropriate, on the Weather Mission Support Plan, developed by HQ AFWA, and on the Weather Development Plan, developed by the Electronic Systems Center (ESC).
- 2.3.9. Perform initial and on-going self-training on staffmet responsibilities, the AF Modernization Planning Process, acquisition and/or RDT&E processes, using materials provided or recommended by HQ AFMC/DOW and immediate supervisors, or developed in-house.
- **3. AF System Modernization.** The Air Force Modernization Planning Process is the framework for determining Air Force needs for new or improved capabilities to perform its assigned missions. It is structured to contribute to the larger, national level process which establishes the national security objectives and defense strategy. The process has essentially four components: the requirements portion to identify deficiencies; the development planning process by which operational deficiencies are translated into technology needs; the AF Science and Technology Planning Process to inject new technologies to satisfy the deficiencies; and finally the acquisition portion where the AF develops new capabilities. All four components work in concert in an iterative process. AFMC meteorologists must work within these established AF processes to ensure systems are developed to work well in their intended terrestrial/space environment and exploit the environment to enhance capabilities.
 - 3.1. Requirements. Typically the Modernization Planning Process is entered through the requirements component. Identifying deficiencies requires a clear understanding of current and future mission requirements. As a result of Joint Staff and National Command Authority guidance, DoD produces regional and global plans and strategies tasking the services with specific missions and objectives. On this basis, the Air Force uses Mission Area Assessments (MAA) and Mission Needs Analysis (MNA) to identify the mission needs and develop operational requirements. The Air Staff, Air Force Major Commands (MAJCOMs) and Field Operating Agencies (FOAs) conduct MAAs using a "strategy-to-task" process linking the need for certain military capabilities to the military strategy. The MNA begins when tasks are identified during the MAA. The MNA objective is to evaluate the Air Force's ability to accomplish identified tasks and missions using current and programmed future systems. AFPD 10-6, Mission Needs and Operational Requirements, and AFI 10-601, Mission Needs and Operational Requirements; Guidance and Procedures, provide greater detail on the

requirements process. Requirements documents are usually the first opportunity for SWOs to insert environmental considerations into a program.

- 3.1.1. Mission Area Plans (MAPs). Mission Area Plans are developed by MAJCOMs to document the results of MAAs and MNAs. MAPs cover periods of 25 years and develop the most cost effective means of correcting task deficiencies from among non-material solutions, changes in force structure, systems modifications or upgrades, science and technology applications, and new acquisitions. AFPD 10-14, *Modernization Planning*, and AFI 10-1401, *Modernization Planning Documentation*, establish the policy, functional responsibilities, and procedures for the MAP process. MAPs are developed by the using commands and supported by MAJCOM SWOs, with staffmet support as needed.
- 3.1.2. Mission Support Plans (MSPs). Cross-cutting functional areas develop Mission Support Plans following the same principles used in MAP development. The Weather MSP must cover the weather deficiencies identified in all of the MAPs. It must also address the derived requirements (those not specifically spelled out in the MAPs) and modernization requirements within the weather community to support the needs of the weather community's warfighting customers. The Weather MSP team is composed of two groups: the O-6 Steering Group and the Action Officer Group. Membership may be drawn from Air Force MAJCOMs, including Air Reserve Component (ARC), Army Major Commands (MACOMs), Headquarters Air Force Weather Agency (HQ AFWA), AF Research Lab (AFRL/XP, others as needed), AFMC product and test centers, the Air Staff, and other functional experts. The O-6 Steering Group provides broad, generalized guidance on future directions with the Action Officer Group developing the plan.
- 3.2. Development Planning Process. Development planning serves as a critical, intermediate step in the translation of operational deficiencies into technology needs. Successful translation requires an intimate understanding of the evolution of the warfighter's needs, and a close interaction with industry, the Science and Technology (S&T) community, academia and the AFMC System Program Offices to develop material and non-material solution to identified shortfalls. The primary AFMC executing agents for development planning activities are the Product Center XRs and their Technical Planning Integrated Product Teams (TPIPTs).
 - 3.2.1. Technical Planning Integrated Product Teams. To better focus technology and systems development efforts, TPIPTs have been established to integrate information from all the stakeholders, provide a forum to understand AF mission area requirements, and develop solutions and identify technology needs. The TPIPTs are networks of experts from the AFMC development planning community, the product centers, industry, academia, AFRL, and operational commands that are organized by mission or function to plan and facilitate the development of technical solutions to users' near, mid, and far term operational needs.
 - 3.2.2. Development Plan (DP). One of the TPIPT's primary functions is to develop and analyze materiel/non-materiel solution to operational deficiencies. For materiel solutions, the culmination of this analysis is the Development Plan. It reflects 25 years of planned development to correspond to the timelines in Mission Area and Mission Support Plans. It identifies and characterizes the high payoff solutions that satisfy one or more deficiencies identified in the MAP or MSP. In addition, it provides the S&T community with a design blueprint, in the form of technology needs, for making investment decisions to address these deficiencies.
 - 3.2.2.1. Weather Development Plan. ESC provides the chair of the Weather TPIPT. Mem-

bership is drawn from the Air Force MAJCOMs, Army MACOMs, HQ AFWA, AFRL and AFMC product centers, the Air Staff, and other functional experts. This group usually meets on an as-needed basis to discuss the Weather Development Plan, to evaluate the status of in-progress programs, and to consider changes, as necessary. It works closely with the Weather MSP Action Officer Group.

- 3.3. AF Science and Technology Planning Process. As an integral part of the Air Force planning process, the Science and Technology Planning Process provides a comprehensive conduit for technology development and transfer to address operational deficiencies. Guided by the output of the Development Planning Process and continual communication with the using commands, it ensures dollar constrained technology projects are formulated in an highly integrated manner and focused on the warfighters' needs. Close coordination between the S&T and development communities, via the TPIPTs, also ensures technologies flowing into AFMC centers for application/insertion are validated and ready to enter the full acquisition cycle. The primary AFMC executing agent for technology planning and execution is the Air Force Research Laboratory (AFRL) and its ten technical directorates.
 - 3.3.1. S&T Plan. AFRL documents its S&T investment strategy to address the spectrum of defined technology needs in the bi-annual S&T Plan. This plan outlines the overarching DoD and S&T-level guidance and direction bounding investment options, as well as the specific investment strategy for the Fiscal Year Development Plan.
- 3.4. Acquisition Programs. Acquisition programs provide a logical means of progressively translating broadly stated mission needs into well-defined system specific requirements. This is accomplished using an incremental commitment of resources, converting dollars into hardware or capability. The rules governing the process are found in DoD Directive 5000.1, *Defense Acquisition*, and DoD Regulation 5000.2-R, *Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs*.
 - 3.4.1. Weather personnel are key players in acquisition programs. Staff meteorologists at AFRL research sites and AFMC Product Centers and Test Centers provide all necessary technical advice, information, and aid, from a weather viewpoint, to AFMC acquisition programs through all phases of the acquisition cycle. Staff meteorologists work with the respective program/project office to identify and quantify weather sensitivities of Air Force systems and also communicate these to the lead command Staff Weather Officer.
 - 3.4.2. Lead Command SWOs supporting the operating commands have the primary responsibility to identify environmental support requirements for the USAF acquisition and technology-based programs generated by their MAJCOMs. They ensure environmental support requirements and resources are identified in Mission Needs Statements (MNSs), Operational Requirements Documents (ORDs), and CONOPS prepared by their command. Lead Command SWOs identify to the appropriate staffmet any system weather sensitivities or potential operational weather support shortfalls they discover within the planned system. They also provide input to the Weather MSP process. AFMC staffmets may assist MAJCOM SWOs in any or all of these processes.
 - 3.4.3. Staff meteorologists also identify weather support requirements for USAF acquisition and technology-based programs. Staffmets ensure weather support requirements and resources are identified in technology and acquisition documents, such as the Test and Evaluation Master Plan (TEMP) or Single Acquisition Management Plan (SAMP). They help ensure new resource requirements are considered in subsequent system acquisition documents for funding outside of

AFW as well as those to be funded by AFWA as the standard systems agent. Requirements funded outside of AFW or those unique to the operating command are identified to the system program/project office. Weather support requirements for Air Force wide applications are identified to HQ AFWA and HQ USAF/XOW. Staffmets also provide requirements input through the Weather MSP and DP process.

WILBERT D. PEARSON, JR., Brigadier General, USAF Director of Operations

Attachment 1

GLOSSARY OF REFERENCES AND TERMS

References

CJCSI 3170.01, Requirements Generation Process, 13 June 1997

DoDD 5000.1, Defense Acquisition, 15 March 1996

DoD 5000.2-R, Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs, 1996

AFPD 10-6, Mission Needs and Operational Requirements, 19 January 1993

AFI 10-601, Mission Needs and Operational Requirements Guidance and Procedures, 31 May 1994

AFPD 10-9, Lead Operating Command Weapons System Management, 31 January 1997

AFI 10-901, Lead Operating Command--Command, Control, Communications, and Computers (C4) Systems Management, 1 March 1996

AFPD 10-14, Modernization Planning, 3 March 1995

AFI 10-1401, Modernization Planning Documentation, 22 May 1995

AFPD 15-1, Atmospheric and Space Environmental Support, 13 October 1993

AFPD 61-1, Management of Science and Technology, 31 August 1993

AFI 61-105, Planning for Science and Technology, 22 July 1994

AFPD 63-1, Acquisition System, 31 August 1993

AFI 63-101, Acquisition System, 11 May 1994

Terms

Acquisition Program—A funded effort, directed by Headquarters US Air Force, to correct a validated materiel deficiency in a user's ability to achieve operational objectives. An acquisition program begins with Approval to Conduct Concept Studies (Milestone 0) and can involve design, development, production, and modification, or any one or a combination of these activities (AFI 63-101). S&T programs are not acquisition programs, but are supporting activities.

Advanced Concept Technology Demonstration (ACTD) Process—A means of demonstrating mature technology to address critical military needs. Not an acquisition program, but designed to provide a residual, usable capability upon completion.

Advanced Technology Demonstration (ATD)—Projects within the 6.3a (advanced technology development) intended to demonstrate technical feasibility and maturity, and reduce technical risks.

Analysis of Alternatives (AoA)—The AoA provides an analytical basis for selecting the most cost-effective material alternative to satisfy a mission need. It allows comparison of each alternative solution on the basis of cost and operational effectiveness.

Appropriation Codes—A fund authorization set up by an act of the Congress that permits a department or other governmental agency to obligate the Federal Government to pay for goods and services.

Appropriations and their budget codes are as follows:

- 3010 Aircraft procurement
- 3020 Missile procurement
- 3080 Other procurement
- 3300 Military construction
- 3400 Operations and maintenance
- 3500 Military personnel
- 3600 Research, development, test, and evaluation

Commercial Off-the-Shelf (COTS)—A commercial item that requires no unique government modifications or maintenance over the life cycle of the product to meet the needs of the procuring agency.

Concept of Operations (CONOPS)—The user's description of how the warfighter intends to operate and employ the system in conjunction with other existing and projected systems. It describes, in broad outline, a commander's assumptions or intent in regard to an operation or series of operations.

Developmental Test and Evaluation (DT&E)—T&E conducted throughout the life cycle to identify potential capabilities and limitations of alternative concepts and design options; support the identification of cost-performance trade-offs; support the identification and description of design technical risks; assess validity of assumptions and conclusions from the analysis of alternatives (AoA); provide data and analysis in support of the decision to certify the system ready for operational test and evaluation (OT&E).

Environmental Sensitivity—The susceptibility of a system to the effects of the natural and man-induced aerospace environment. This includes space and atmospheric effects.

Environmental Impact—The effect of the system on the environment, e.g. ionization, polluting by-products.

Full Operational Capability (FOC)—The full attainment of the capability to effectively employ a weapon, item of equipment, or system of approved specific characteristics, which is manned or operated by a trained, equipped, and supported military unit or force. FOC is normally declared when predetermined criteria are met.

Implementing Command—The command responsible for the acquisition and/or modification of the system (AFMC in USAF).

Initial Operational Capability (IOC)—. The first attainment of the capability to employ a weapon, item of equipment, or system of approved specific characteristics, and is manned or operated by an adequately trained, equipped, supported military unit or force. Normally defined in the ORD and is event-driven.

Lead Command—The command designated in the PMD to be responsible for overall management of a system. When multiple commands "share" a system, HQ USAF will designate a Lead Command as the overall advocate for that system.

Materiel System—A final combination of subsystems, components, parts, and materials that make up an entity for use in combat or in support thereof. It includes the basic materiel items and all related equipment, supporting facilities, and services required for operating and maintaining the system.

Major System—A combination of elements that will function together to produce the capabilities required to fulfill a mission need, including hardware, equipment, software, or any combination thereof,

but excluding construction or other improvements to real property. A major system meets the expenditure criteria for ACAT I or II.

Mission Area—A segment of the defense mission defined by the Office of the Under Secretary of Defense (Acquisition and Technology).

Mission Area Assessment (MAA)—A process designed to enhance Air Force warfighting capabilities by identifying military objectives in the Defense Planning Guidance (DPG), the Joint Strategic Capabilities Plan (JSCP), Air Force guidance, and regional Operations Orders and Operations Plans. MAA uses a "strategy-to-task" methodology to identify the operational and support tasks needed to achieve military objectives.

Mission Deficiency—The inability to accomplish an operational or support task required for the achievement of a military objective.

Mission Need Analysis (MNA)—A process designed to assess the Air Force's ability to accomplish the tasks identified during Mission Area Assessment (MAA). MNA uses a task-to-need methodology to identify mission needs. MNA can also highlight technological opportunities and identify reliability and maintainability improvements which can also enhance warfighting capabilities.

Mission Need Statement (MNS)—A document prepared to identify a requirement for a materiel solution to satisfy a mission deficiency.

Model—A representation of an actual or conceptual system that involves mathematics, logical expressions, or computer simulations that can be used to predict how the system might perform or survive under various conditions or in a range of hostile environments.

Need—The identification of a mission deficiency satisfied by a materiel or nonmateriel solution. If a materiel solution is envisioned, it is normally documented in a Mission Need Statement (MNS).

Operating Command—The command primarily operating a system, subsystem, or item of equipment. Same as the using command.

Operational Requirements Document (ORD)—This is a further refinement of the requirements found in the Mission Need Statement, and is also written by the using command. It is the document that the program office uses in constructing the system specification.

Operational Test and Evaluation (OT&E)—Testing and evaluation conducted in as realistic an operational environment as possible to estimate the prospective system's military utility, operational effectiveness, and operational suitability. In addition, operational test and evaluation provides information on organization, personnel requirements, doctrine, and tactics. Also, it may provide data to support or verify material in operating instructions, publications, and handbooks.

Originating Command—The Air Staff office, major command, or field operating agency that prepares a document in compliance with AFI 10-601.

Participating Command—A command or agency designated by the Air Force Acquisition Executive to advise the program manager and to take an active part in developing a weapon system. The supporting command is also a participating command.

Program Management Directive (PMD)—The official HQ US Air Force document used to direct acquisition responsibilities to appropriate Air Force major commands, agencies, program executive offices (PEOs), or designated acquisition commander. All Air Force acquisition programs require PMDs.

Program Objective Memorandum (POM)—A biennial memorandum submitted to the Secretary of Defense (SECDEF) from each Military Department and Defense agency. It proposes total program requirements for the next 6 years. It includes rationale for planned changes from the approved Future Years Defense Plan (FYDP) baseline within the fiscal guidance issued by the SECDEF.

Program/Project Brief—A staffmet-generated document that begins and updates the weather support planning process for AFMC for each new acquisition or technology based program. Documents future weather support requirements/concepts, defines weapons specific environmental sensitivities and is used as the basis for planning future weather support requirements by HQ USAF/XOW and HQ AFWA.

Requirement—An established need that justifies the timely allocation of resources to achieve a capability to accomplish approved military objectives, missions, or tasks.

Requirements Correlation Matrix (RCM)—Requirements summary section of an ORD used to provide a system audit trail of needed capabilities and characteristics. It lists user-identified system capabilities and characteristics with accompanying thresholds and objectives; identifies user recommended key performance parameters; provides supporting rationale justifying each threshold; and rationale for changes in requirements as the system matures.

Simulation—A method for implementing a model. It is the process of conducting experiments with a model for the purpose of understanding the behavior of the system modeled under selected conditions or of evaluating various strategies for the operation of the system within the limits imposed by developmental or operational criteria.

Single Acquisition Management Plan (SAMP)—An Air Force acquisition strategy document which discusses all relevant aspects of a program in a comprehensive, integrated plan. It consolidates acquisition and management planning information. A SAMP is required for ACAT I and II programs, optional for ACAT III.

Staff Meteorologist—An Air Force weather officer or officer-grade civilian who provides or arranges weather support for research, development, acquisition, test and evaluation, or other specialized activities.

Staff Weather Officer (SWO)—An Air Force Weather officer or officer-grade civilian who provides or arranges for staff and operational weather services for their MAJCOM users of the particular system.

Strategies-to-Task (STT) Analysis—Methodology to identify operational and support tasks to achieve military objectives. Starts with the National Security Strategy and proceeds through National Military Objectives, Theater/Regional Objectives, Operational Objectives, and Operational Tasks, to the Operational Systems.

Supporting Command—The command (AFMC in USAF) responsible for providing logistics support for a system and assuming program management responsibility from the implementing command.

System Acquisition Process—A sequence of specified decision events and phases directed to achieve program objectives and to acquire systems. It extends from validating a requirement through deploying the system or terminating the program.

System Program Office (SPO)—The office at the AFMC product center which has responsibility to acquire new systems or upgrade existing ones.

Test and Evaluation Master Plan (TEMP)—Basic planning document developed by the System Program Office for all test and evaluation related to a particular system acquisition.

Using Command—Usually the same as the operating command. Typically, the ultimate operators of a system. There are some exceptions (i.e. Headquarters, Air Combat Command) which can be the using command for a reconnaissance satellite for which Air Force Space Command is the operating command.

Weapon System—Items that can be used directly by the armed forces to carry out combat missions and that cost more than \$100,000 or for which the eventual total procurement cost is more than \$10,000,00.

Attachment 2

PROGRAM/PROJECT BRIEF FORMAT

PROJECT/PROGRAM: Next Generation Disintegrating Ray Gun

DATE OF LAST UPDATE: 1 Apr 1996

PURPOSE/PROGRAM DESCRIPTION: (GENERAL OVERVIEW OF PROGRAM/ PROJECT)

The purpose of this program is to develop and field a disintegrating ray gun, a man portable hand weapon with adjustable capabilities, capable of melting through structures or rendering enemy personnel unconscious.

ENVIRONMENTAL SENSITIVITIES: (ANYTHING THAT WILL AFFECT THE OPERATION, EMPLOYMENT OR SUPPORT OF THE PROGRAM OR ITS SUPPORT SYSTEMS)

Abrasion of lens covers

Electro-Magnetic field variations

Absorption of energy by atmospheric gasses/particles/precipitation

Exposure to space environment both near earth and inter-stellar

ANTICIPATED AFW SUPPORT REQUIREMENTS: (NEW TECHNOLOGIES, MODELS, MANNING REQUIREMENTS, OPERATIONS CHANGES OR EQUIPMENT REQUIRED TO SUPPORT THE PROGRAM THROUGHOUT ITS LIFE CYCLE)

Climatic atmospheric dust concentrations

Forecast of Electro-Magnetic field densities

Tactical Decision Aid (TDA) for range and lethality calculations

PROGRAM STATUS: (GENERALIZED TIME TABLE OF PROGRAM INCLUDING TEST PLANS, DEVELOPMENT, DEPLOYMENT, AND FIELDING)

Responsible Organization: AFRL/XXX

Milestones: Concept Definition Oct 1996
DT & E Nov 1997
Critical Design Review Feb 1998
I O T & E May 1998
Manufacture Sept 1999
Field Jan 2000

Request for Proposal (RFP) generated Jan 1996

30 OCTOBER 1998

PAST/CURRENT/FUTURE SUPPORT: (MAJOR SUPPORT YOU HAVE PROVIDED OR PLAN TO PROVIDE TO SUPPORT THIS PROGRAM/PROJECT)

Helped define environmental requirements for RFP

Hosted technical working groups to define environmental sensitivities and support requirements

Established working group to define TDA requirements

Will monitor contract performance for TDA development

DATA AFW MIGHT BE ABLE TO USE: (ANY OUTPUT PARAMETERS FROM THIS PROGRAM WITH POTENTIAL WEATHER/SPACE APPLICATIONS)

Discharge data could assist AFW in determining atmospheric transmission and ionization properties

POINTS OF CONTACT: (POCs AT THE STAFFMET UNIT, PRODUCT CENTER, LAB-ORATORY, TEST CENTER, MAJCOM, OR AIR STAFF)

Capt Fantastic AFRL/XXX DSN 555-5555 email: Mr. R. Andy SMC/XXX DSN 555-5555 email:

SUPPORTING DOCUMENTS: (MNS, ORD, Program Management Directive (PMD), CONOPS, etc.)

Intergalactic Expeditionary Force (IEF) MNS 93-001, Tactical Defense Systems, 1 Apr 93 IEF ORD 95-004/III, Multipurpose Focused Energy Portable Weapon, 1 Oct 95

Attachment 3

ACTIVITIES REPORT CONTENT

- **A3.1. Projects.** Summarize recent involvement with a) ongoing projects, b) new efforts, c) one-time support efforts. Explain in sufficient detail to clearly convey extent and significance of support, and problem areas, if any.
- **A3.2. Training, conferences, TDYs** . Briefly describe involvement in these activities, including progress in PME courses.
- **A3.3.** Value-added. Include value-added information if available (see Atch 4).
- A3.4. Community activity involvement, significant official events, upcoming PCS's, miscellaneous. Crossfeed of any information that might be of interest to DOW or other staffmets is encouraged.

Attachment 4

VALUE-ADDED REPORT GUIDANCE

A4.1. Value-added information helps to quantify one's contribution to a larger project or goal and may help substantiate the inherently governmental nature of the supporting work. Negative-type reports can also contain valuable information, such as money wasted through unnecessary contracts when in-house staffmet support was available but not used; retroactive fixes that could have been prevented with appropriate early staffmet involvement; or inadequate support for fielded systems due to lack of development efforts in another area.

A4.2. Examples of value-added:

- A4.2.1. Saved cost of hiring a contractor.
- A4.2.2. Quantifiable savings in hardware/software cost:
 - Advice resulted in design change.
 - Advice resulted in purchase of best-value equipment.
 - Advice prevented certain problems from arising further on in development.
- A4.2.3. Enabled program to stay on or get ahead of schedule.
- A4.2.4. Prevented resources wasted on preparations, then abort (e.g., test operations)
- A4.2.5. Enhanced the performance of a system faster, more accurate, solved a deficiency, improved information to decision-maker

A4.3. Specific examples:

- Damage to telescope mirror would cost \$1M in repair and 6 months non-productive downtime.
- Without weather support, \$400K per year would be wasted in unproductive attempts to test.
- Extended sensor window coating life by 300%.
- Changes to stacking/destacking procedures saves \$2.2M.
- Support saves 10% of program costs per year.
- **A4.4.** When first defining, or redefining, support to a particular program or project, try to evaluate and prioritize the benefits you foresee for each contribution. A sense of where the biggest payoffs are for the program may help structure your efforts.